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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/623,784	Applicant(s) FOOTE ET AL.
	Examiner Hong Cho	Art Unit 2616

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 June 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-32 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-32 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
5) Notice of Informal Patent Application
6) Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on 06/19/07. Claims 1-32 are pending in the instant application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1, 2, 5-15 and 18-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hama (US 20040202171) in view of Ishizaki et al (US 7099912), hereinafter referred to as Ishizaki.

Re claims 1, 14, 23 and 32, Hama discloses establishing virtual private network (*establishing a customer-specific virtual private local area network (VPL) through a multiprotocol label switched (MPLS) domain* in claims 23 and 32, paragraph [0002], lines 18-21). Hama discloses a provider edge device (PE) (figure 6, element 213) receiving traffic from another PE (figure 6, element 212) via a MPLS network (*receiving traffic*

from a customer at a provider edge device (PE), wherein said PE connects to other PEs via a tunnel-capable network). Hama discloses a PE distributing traffic to either Internet (*first service, non-VPL service* in claims 23 and 32) or within corporate enterprise (*default service, VPL service* in claim 23, *remaining traffic* in claim 32) based on virtual local area network (VLAN) identifiers (IDs) (*associating traffic with either the first service or with a default service in response to the classification, traffic; forwarding non-VPL traffic outside of said customer-specific VPL; and forwarding the remaining traffic within said customer-specific VPL* in claim 32, paragraph [0093]), but fails to disclose explicitly identifying a set of virtual local area network (VLAN) identifiers (IDs) for use with a first service and associating traffic based on explicitly identified set of VLAN IDs. Ishizaki discloses allowing VID-A and VID-B to access Internet (*explicitly identifying a set of virtual local area network (VLAN) identifiers (IDs) for use with a first service, column 8, lines 26-36*) and checking VLAN ID to determine how to distribute the traffic (*associating traffic with either the first service or with a default service in response to the classification, column 8, lines 28-36*). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the PE of Hama to implement the function of associating traffic with either the first service or with a default service in response to the classification, as suggested by Ishizaki (column 8, lines 32-33), so that Internet access would be managed by VLAN ID.

Re claims 2 and 15, Hama discloses a packet containing VLAN ID value (paragraph [0093], lines 1-2).

Re claims 5 and 18, Hama discloses PEs in a MPLS network (figure 6, element 200).

Re claims 6, 7, 9, 19, 20 and 30, Hama discloses encapsulating a packet with a VPN label (*a tunnel label*) and a VLAN ID (*a virtual circuit label*) (paragraph [0093]).

Re claim 8, Hama discloses a PE distributing traffic to corporate enterprise (*VPL service*, paragraph [0093]).

Re claim 10, Hama discloses all of the limitations of the base claim, but fails to disclose assigning a range of VLAN IDs to a customer and explicitly identifying a set of VLAN IDs from the assigned range of VLAN IDs. Ishizaki discloses allowing VID-A and VID-B to access Internet (*explicitly identifying a set of VLAN ID*, figure 5; column 8, lines 28-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the PE of Hama to implement the function of explicitly identifying a set of VLAN ID, so that Internet access would be managed by VLAN ID.

Re claims 11 and 21, Hama discloses finding VPN identifier corresponding to the VID contained in the tag (*identifying a layer 2 (L2) forwarding equivalency class (FEC) that is related to the first service and associating the traffic with the default service includes identifying an L2 FEC class that is related to the default service*, paragraph [0087], lines 2-4).

Re claims 12 and 24, Hama discloses using IEEE 802.1q VLAN IDs for constructing VPN, but fails to disclose identifying IEEE 802.1q VLAN for use with a first service (non-VPL traffic in claim 24). Ishizaki discloses allowing VID-A and VID-B

to access Internet (*explicitly identifying a set of virtual local area network (VLAN) identifiers (IDs) for use with a first service*, figure 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the PE of Hama to implement the function of associating traffic with either the first service or with a default service in response to the classification, as suggested by Ishizaki (column 8, lines 32-33), so that Internet access would be managed by VLAN ID.

Re claims 13 and 22, Hama discloses a PE distributing traffic to either Internet (*non-VPL service*) or within corporate enterprise (*VPL service*) based on VLAN IDs (paragraph [0093]).

Re claim 25, Hama and Ishizaki disclose all of the limitations of the base claim, but fail to disclose determining whether the traffic is non-VPL traffic before determining whether the traffic is VPL traffic. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hama and Ishizaki to process non-VPL traffic before VPL traffic so that non-VPL traffic would be processed with high priority.

Re claims 26 and 27, Hama discloses all of the limitations of the base claim, but fails to disclose identifying a set of VLAN IDs for use with a first service and identifying traffic as VPL traffic if VLAN ID is not identified with a set of VLAN IDs. Ishizaki discloses allowing VID-A and VID-B to access Internet (*identifying a set of VLAN IDs for use with a first service*, figure 5) and associating VID-C with VPL traffic (*associating traffic with VPL traffic*, column 8, lines 28-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the PE of

Hama to implement the function of associating traffic with either the first service or with a default service in response to the classification, as suggested by Ishizaki (column 8, lines 32-33), so that Internet access would be managed by VLAN ID.

Re claims 28 and 29, Hama discloses finding VPN identifier corresponding to the VID contained in the tag (*configuring L2 FEC that maps the non-VPL traffic to a label switching path (LSP) that does not support the customer-specific VPL and maps the VPL traffic to a LSP that supports the customer-specific VPL service*, paragraph [0015], lines 10-16).

Re claim 31, Hama discloses VLAN IDs having per-port significance (figure 7).

Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hama in view of Ishizaki and further in view of Bhatia (US 6990106).

Re claims 3 and 16, Hama and Ishizaki disclose all of the limitations of the base claim, but fail to disclose classifying traffic based on incoming port of the traffic. Bhatia discloses classifying the packet based on port (column 3, lines 63-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hama and Ishizaki to classify a packet based on incoming port so that a packet would be classified at early stage for the benefit of rapid processing.

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hama in view of Ishizaki and further in view of Wakayama et al (US 7079544), hereinafter referred to as Wakayama.

Re claims 4 and 17, Hama and Ishizaki disclose all of the limitations of the base claim, but fail to disclose classifying traffic based on incoming port of the traffic. Wakayama discloses classifying the packet based on port and VLAN ID (column 6, lines 38-41). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Hama and Ishizaki to classify a packet based on incoming port and VLAN ID so that a packet would be classified at early stage for the benefit of rapid processing.

Response to Arguments

4. Applicant's arguments filed on 06/19/07 have been fully considered but they are not persuasive.

On pages 7-9 of the Remarks the Applicant argues that Hama and Ishizaki, alone or in combination, does not disclose associating a given traffic with a default service if the traffic does not have a VLAN ID from the explicitly identified set of VLAN IDs. The Examiner respectfully disagrees. Hama discloses distributing traffic to either Internet (*first service, non-VPL service*) or within corporate enterprise (*default service, VPL service*) based on virtual local area network (VLAN) identifiers (IDs) and Ishizaki discloses allowing VID-A and VID-B to access Internet (*explicitly identifying a set of virtual local area network (VLAN) identifiers (IDs) for use with a first service*, column 8, lines 26-36) and checking VLAN ID to determine how to distribute the traffic (*associating traffic with either the first service or with a default service in response to the*

classification, column 8, lines 28-36). In this case, it is the combined teaching of Hama and Ishizaki that meets the all claim limitations.

The Examiner concludes that the rejection of claims stands.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



7/10/07
WING CHAN
SUPERVISORY PATENT EXAMINER

hc
Hong Cho
Patent Examiner
7/9/07